

WITH MAJOR CHORDS

See before EX. 48

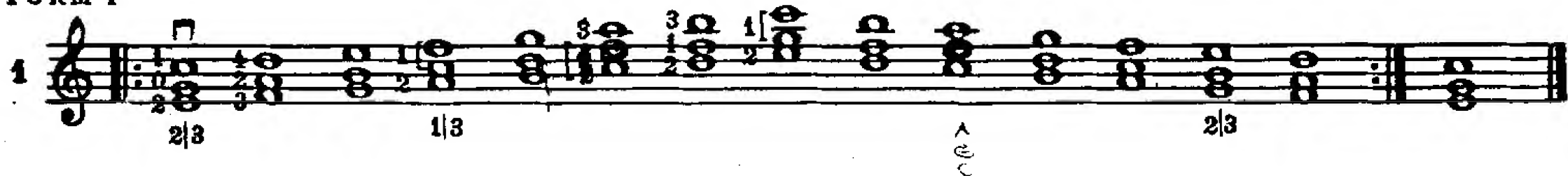
EX. 1

The first exercise is a harmonized major scale in triads using six different fingerings. The first form is on the second and first sets of three strings. (See notations below the staff.) The second form of Ex. 1 is played entirely on the second set of three strings. The third form is played on the second and first sets of three strings but varies from the first form because the cross-over is on a different note of the scale. The fourth form is on the third, second and first sets of three strings. The notation in all the forms of the first exercise is the same but the fingerings are different in each one, and should be practiced as separate exercises. You will notice that the first four forms of Ex. 1 are long forms which cover quite a bit of the fingerboard. The fifth form is more condensed and the sixth form is the most condensed form of this harmonized scale. This first exercise is written in whole notes with no division of bars because the notes are of equal value and should be practiced very slowly. Ex. 1 and all its forms should be played in all the keys, made possible by the six different fingerings, as follows:

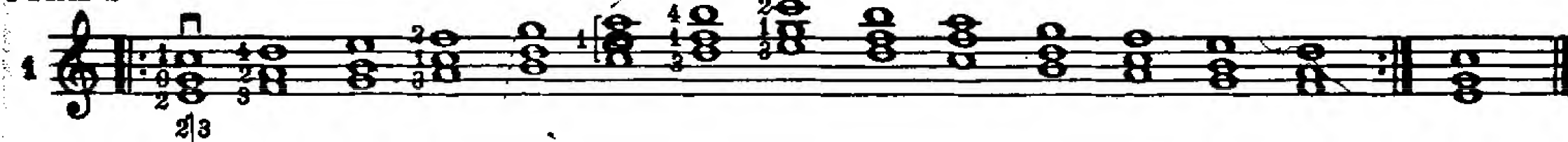
- 1st form—from C up to F
- 2nd form—from C up to C sharp (D if possible)
- 3rd form—from C up to F
- 4th form—from A flat up to D flat (D if possible).
- 5th form—from A flat up to E
- 6th form—from F sharp up to C sharp

It is necessary to become familiar with all these forms as they will be referred to often.

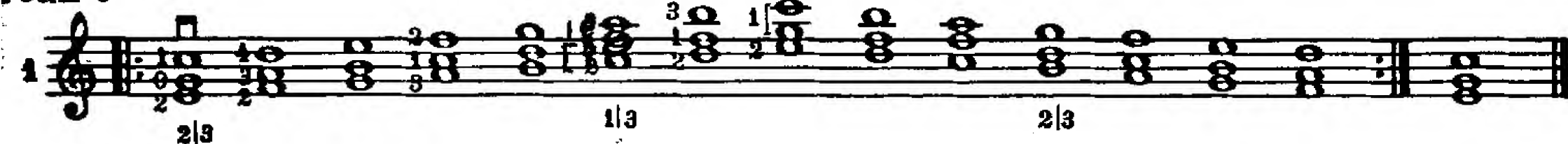
FORM 1



FORM 2



FORM 3



FORM 4



FORM 5

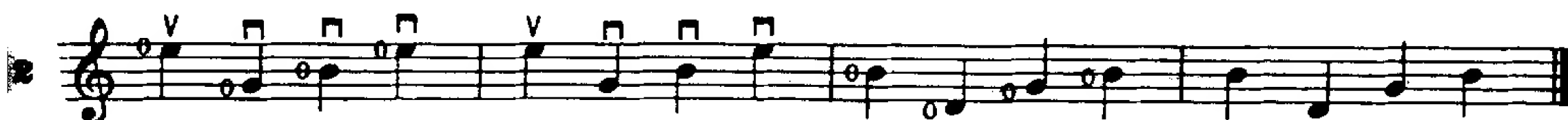


FORM 6



EX. 2

Ex. No. 2 is a preparatory exercise. This form of picking is termed arpeggio picking. To get acquainted with this form for the right hand, it is used on open strings so that you have to concentrate only on the pick and wrist action. It should be developed to sound even dynamically and steady rhythmically. To explain the pick and wrist action in Ex. 2 is difficult as we do not actually pick each string individually. The pick passes over each string and accents it with a slight kick, which is more of a pulsation. The reason for this is that using the pulsation principle you will be able to maintain a steady tempo and you will not strike two strings at once, as you might do if you were just forcibly pushing the pick across the strings. In other words it should have a smooth but deliberate effect. If and when you do strike two strings together, you will know that you're not "pulsating" properly, if at all. In the down strokes, use the next highest string as a pick stop. In the up strokes, you will not need a stop as the pick returns in in upward motion.



MAJOR

Scale in first inversion triads taken thru the descending cycle of fifths - 12 keys - full range - triads named for one octave - then they repeat - Upper voice is the tonic of each triad - Numbers above notation denote steps of scale

Handwritten notes on the left margin: C, F, Bb, Eb, Ab

System 1 (C major): Dm, Em, F, G, Am, Bdim or G7, C. Triads: Dm (2, 3, 4), Em (2, 3, 4), F (1, 2, 3), G (4, 5, 6), Am (2, 3, 4), Bdim or G7 (2, 3, 4), C (1, 2, 3). Scale steps: 1, 2, 3, 4, 5, 6, 7.

System 2 (F major): Dm, Edim or C7, F, Gm, Am, Bb, C. Triads: Dm (6, 7, 1), Edim or C7 (6, 7, 1), F (1, 2, 3), Gm (2, 3, 4), Am (2, 3, 4), Bb (2, 3, 4), C (1, 2, 3). Scale steps: 1, 2, 3, 4, 5, 6, 7.

System 3 (Bb major): Dm, Eb, F, Gm, Adim or F7, Bb, Cm. Triads: Dm (3, 4, 5), Eb (3, 4, 5), F (1, 2, 3), Gm (2, 3, 4), Adim or F7 (2, 3, 4), Bb (2, 3, 4), Cm (1, 2, 3). Scale steps: 1, 2, 3, 4, 5, 6, 7.

System 4 (Eb major): Eb, Fm, Gm, Ab, Bb, Cm, Ddim. Triads: Eb (1, 2, 3), Fm (1, 2, 3), Gm (2, 3, 4), Ab (2, 3, 4), Bb (2, 3, 4), Cm (1, 2, 3), Ddim (1, 2, 3). Scale steps: 1, 2, 3, 4, 5, 6, 7.

System 5 (Ab major): Eb, Fm, Gdim, Ab, Bbm, Cm, Db. Triads: Eb (1, 2, 3), Fm (1, 2, 3), Gdim (2, 3, 4), Ab (2, 3, 4), Bbm (2, 3, 4), Cm (1, 2, 3), Db (1, 2, 3). Scale steps: 1, 2, 3, 4, 5, 6, 7.

Scale in first inversion triads - Cycle of fifths -

D \flat

Triads for D \flat scale: Ebm, Fm, G \flat , A \flat 4/3, Bbm, Cdim, D \flat 3/3, Ebm 2/3, F 1/3, G 2/3, A 1/3, B 2/3, C 1/3, D 1, E 2, F 3.

G \flat

Triads for G-flat scale: Ebm, Fdim, G \flat , A \flat m 3/3, Bbm, C \flat , D \flat 2/3, Ebm 1/3, F 2, G 3, A 4, B 5, C 6, D 7.

B

Triads for B scale: D#m, E, F#, G#m 4/3, A#dim 3/3, B, C#m, D#m 2/3, E 1/3, F 2, G 3, A 4, B 5, C 6, D 7.

E

Triads for E scale: D#dim, E, F#m, G#m 4/3, A, B, C#m 3/3, D#dim 2/3, E 1/3, F 2, G 3, A 4, B 5, C 6, D 7.

A

Triads for A scale: D, E, F#m, G#dim 3/3, A, Bm, C#m, D 2/3, E 1/3, F 2, G 3, A 4, B 5, C 6, D 7.

D

D Em F#m G 4/3 A Bm C#dim 3/3 D 2/3 1/3

G

D Em F#dim G 4/3 Am Bm 3/3 C D 2/3 1/3

These Examples explain the reason for using 3 fingers on triads (open or closed voicing) that can be played with 1 or 2 fingers - this type mechanism is a very necessary part of good harmonic technique - A moving voice can not go below barred sustained notes

4/3 A B 3/3

The voice can move lower when the barre is not employed - as in bars = A-B-

1/3 C D E etc.

The moving voice in bar "C" cant go below "G" because the 1st finger is barring it - in "D" and "E" the voices can continue down because of not using the small barre - (double stop)

HARMONIC MINOR

Scale in first inversion triads taken thru the descending cycle of fifths-12 keys - full range - only the ascension is shown; descend using same notation

Am All G's #

Dm E F G#dim or E7 4/3 Am 3/3 Bdim C#dim Dm etc. 2/3 1/3

Dm All C's #

Dm Edim F#aug Gm 4/3 A 3/3 Bb C#dim Dm etc. 2/3 1/3

Gm All F's #

D Eb F#dim Gm 4/3 Adim Bb#aug Cm 3/3 D etc. 2/3 1/3

Cm
All B's^b

E^baug Fm G 4/3 A^b Bdim Cm 3/3 2/3 Ddim E^baug etc. 1/3

Fm
All E's^b

Edim Fm Gdim A^baug Bbm C D^b 3/3 2/3 1/3 Edim etc.

Bbm
All A's^b

Ebm F G^b A^bdim Bbm Cdim D^baug Ebmetc. 2/3 1/3

Ebm
All D's^b

Ebm Fdim G^baug A^bm Bb C^b Ddim 2/3 Ebmetc. 1/3

G#m
All F's
Double #
=x

D# E Fxdim G#m A#dim B aug C#m D# etc. 3/3 2/3 1/3

C#m
All B's[#]

D#dim Eaug F#m G# 4/3 A B#dim C#m D#dim etc. 3/3 2/3 1/3

F#m
All E's[#]

D E#dim F#m G#dim A aug Bm 3/3 C# D etc. 2/3 1/3

Bm
All A's[#]

Daug Em F# G 4/3 A#dim Bm C#dim 3/3 2/3 1/3 Daug etc.

Em
All D's[#]

D#dim Em F#dim Gaug Am B C 3/3 2/3 1/3 D#dim etc.

MELODIC MINOR

Sequences of chords taken thru the descending cycle of fifths-12 keys-full range-descensions are in relative major keys-employ major scale fingering.

Am F# G#

D E F#dim G#dim 4/3 Am Bm 3/3 D 2/3 1/3 2 3 4 5

1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5

1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5

Returns in C major

Dm Bb C

Dm Em F aug G 4/3 A Bdim C#dim 3/3 Dm 2/3 1/3 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5

1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5

1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5

Returns in F major

Gm F# Eb

D Edim F#dim Gm 4/3 Am Bb aug C 3/3 D 2/3 1/3 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5

1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5

1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5

Returns in Bb major

Cm Ab Bb

Dm Eb dim F G 4/3 Adim Bdim 3/3 Cm Dm 2/3 1/3 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5

1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5

1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5

Returns in Eb major

Fm Eb Db

Edim Fm Gm 4/3 Ab aug Bb 3/3 C Ddim Edim 2/3 1/3 2/3 1/3 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5

1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5

1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5

Returns in Ab major

Scale in first inversion triads - cycle of fifths

MELODIC MINOR

Scale in first inversion triads - cycle of fifths (Bbm to Db major)

Triads: Eb, F, Gdim, Adim (4/3), Bbm, Cm (3/3), Db aug, Eb, 2/3, 5, 6, 7, 1/3, 2, 3, 4, 5

Staff 1: Bbm, Gb, Ab

Staff 2: Ab, Gb

Returns in Db major

Scale in first inversion triads - cycle of fifths (Eb major to Gb major)

Triads: Ebm, Fdim, Gb aug, Ab (4/3), Bb, Cdim (3/3), Ddim (2/3), Ebm, 1/3, 2, 3, 4, 5, 6, 7, 1, 2

Staff 1: Ebm, Cb, Db

Staff 2: Cb, Db

Returns in Gb major

Scale in first inversion triads - cycle of fifths (Gbm to B major)

Triads: D#, E#dim, F#dim, G#m (3/3), A#m, B aug, C#, D# (2/3), 1/3, 2, 3, 4, 5, 6, 7, 1, 2, 3, 4, 5, 6

Staff 1: G#m, F#, E#

Staff 2: E#, F#

Returns in B major

Scale in first inversion triads - cycle of fifths (C#m to E major)

Triads: D#m, E aug, F#, G# (4/3), A#dim (3/3), B#dim, C#m (2/3), D#m, 1/3, 2, 3, 4, 5, 6, 7, 1, 2, 3

Staff 1: C#m, A#, B

Staff 2: B#, Ab

Returns in E major

Scale in first inversion triads - cycle of fifths (F#m to A major)

Triads: D#dim, E#dim, F#m, G#m (4/3), A aug, B (3/3), C#, D#dim (2/3), 1/3, 2, 3, 4, 5, 6, 7, 1, 2, 3, 4, 5, 6, 7

Staff 1: F#m, D#, E

Staff 2: E#, D#

Returns in A major

MELODIC MINOR

Scale in first inversion triads - cycle of fifths

Returns in D major

Returns in G major

To descend in the relative major key merely cancel the accidentals but not the key signature

NOTE

Every 7th step is a diminished chord - they are also dominant 7ths of the keys

VARIATION

A very interesting "Mixed" minor scale is: ascend using the melodic notation - descend using the harmonic notation - example below

Melodic minor

Harmonic minor

Also, ascend using harmonic notation - descend using ascending melodic minor notation - just reverse the above

The examples below show various plucking orders for all 3 note chords - employ each one separately full range - apply them to the 2nd inversion and root position triads also - apply to open voicings also 1st inversion - 1st station

MAJOR

Scale in Second Inversion Triads - Cycle of fifths key by key -- 12 keys - full range-middle voice is tonic of each triad

C

Bdim C Dm Em 4/3 F G Am 3/3 Bdim 2/3

1/3

F

Bb C Dm Edim 4/3 F Gm 3/3 Am Bb 2/3

1/3

Bb

Bb Cm Dm Eb 4/3 F 3/3 Gm Adim Bb 2/3

1/3

Eb

Bb Cm Ddim Eb Fm 4/3 Gm Ab 3/3 Bb 2/3

1/3

Ab

Cm Db Eb 4/3 Fm Gdim Ab Bbm 3/3 Cm 2/3

1/3

Db

Cdim Db Ebm Fm 4/3 Gb Ab Bbm 3/3 Cdim 2/3

1/3

Gb

Not using 4th Finger

Cb Db Ebm Fdim 4/3 Gb Abm Bbm 3/3 Cb 2/3

1/3

B

Not using 1st Finger

B C#m D#m E 4/3 F# G#m A#dim 3/3 B 2/3

1/3

MAJOR

Scale in Second Inversion Triads

Diagram showing the Major Scale in Second Inversion Triads across four staves (E, A, D, G).

Staff E: B, C#m, D#dim, E 4/3, F#m, G#m, A 3/3, B, 2/3, 1/3, 3, 4, 5, 6. Fingerings: 2, 3, 4, 1, 2, 3, 4, 5, 6, 1, 2, 3, 4, 5, 6.

Staff A: Bm, C#m, D, E 4/3, F#m, G#dim, A 3/3, Bm, 2/3, 1/3, 6, 7, 1, 2, 3. Fingerings: 3, 2, 1, 4, 3, 2, 1, 3, 2, 1, 4, 3, 2, 1, 3.

Staff D: Bm, C#dim, D, Em 3/3, F#m, G 2/3, A, Bm, 1/3, 7, 1, 2, 3, 4, 5, 6, 7. Fingerings: 3, 2, 1, 4, 3, 2, 1, 3, 2, 1, 4, 3, 2, 1, 3.

Staff G: Bm, C, D, Em 4/3, F#dim, G 3/3, Bm, 2/3, 1/3, 4, 5, 6, 7, 1, 2, 3, 4. Fingerings: 2, 1, 3, 2, 1, 4, 3, 2, 1, 3, 2, 1, 4, 3, 2.

HARMONIC MINOR

Scale in Second Inversion Triads - Cycle of fifths - 12 keys - full range-middle voice is tonic

Diagram showing the Harmonic Minor Scale in Second Inversion Triads across four staves (Am G#, Dm C#, Gm F#, Cm Bb).

Staff Am G#: Bdim, C aug, Dm, E 4/3, F, G#dim 3/3, Am, Bdim, 2/3, 1/3, 5, 6, 7, 1, 2, 3. Fingerings: 2, 1, 3, 2, 1, 4, 3, 2, 1, 3, 2, 1, 4, 3, 2.

Staff Dm C#: Bb, C#dim, Dm, Edim 4/3, F aug, Gm, A, Bb 3/3, 2/3, 1/3, 6, 7, 1, 2, 3, 4, 5, 6, 7. Fingerings: 2, 1, 3, 2, 1, 4, 3, 2, 1, 3, 2, 1, 4, 3, 2.

Staff Gm F#: Bbaug, Cm, D, Eb 4/3, F#dim 3/3, Adim, Bbaug, 2/3, 1/3, 4, 5, 6, 7, 1, 2, 3, 4. Fingerings: 2, 1, 3, 2, 1, 4, 3, 2, 1, 3, 2, 1, 4, 3, 2.

Staff Cm Bb: Bdim, Cm, Ddim, Eb aug 4/3, Fm, G 3/3, Ab, Bdim, 2/3, 1/3, 7, 1, 2, 3, 4, 5, 6, 7, 1. Fingerings: 3, 2, 1, 4, 3, 2, 1, 3, 2, 1, 4, 3, 2, 1, 3.

HARMONIC MINOR

Scale in Second Inversion Triads

Scale in Second Inversion Triads for Harmonic Minor scales. Each line shows a sequence of triads with their constituent notes and fingerings (1-5).

Line 1: Fm (E♭) scale

- Triads: C (Fm), D♭ (E♭), Edim, Fm (4/3), Gdim, A♭aug (3/3), B♭m (2/3), C (1/3).
- Notes: F, E♭, D, C, B, A, G, F.

Line 2: B♭m (A♭) scale

- Triads: Cdim, D♭aug, E♭m, F (4/3), G♭ (3/3), Adim, B♭m (2/3), Cdim (1/3).
- Notes: B♭, A♭, G, F, E, D, C, B♭.

Line 3: E♭m (D♭) scale

- Triads: B♭, C♭, Ddim, E♭m, Fdim (3/3), G♭aug, A♭m, B♭ (2/3), C (1/3).
- Notes: E♭, D♭, C, B, A, G, F, E♭.

Line 4: G♯m (F♯) scale

- Triads: B aug, C♯m, D♯ (4/3), E (F♯ dim 3/3), G♯m, A♯dim, B aug (2/3), C (1/3).
- Notes: G♯, F♯, E, D, C, B, A, G♯.

Line 5: C♯m (B♯) scale

- Triads: B♯dim, C♯m, D♯dim, E aug (4/3), F♯m, G♯ (3/3), A (2/3), B♯dim (1/3).
- Notes: C♯, B♯, A, G, F, E, D, C♯.

Line 6: F♯m (E♯) scale

- Triads: Bm, C♯, D, E♯dim (3/3), F♯m, G♯dim, A aug (2/3), Bm (3/3), C (2/3), D (1/3).
- Notes: F♯, E♯, D, C, B, A, G, F♯.

Line 7: Bm (A♯) scale

- Triads: Bm, C♯dim, D aug (4/3), E♯m (F♯ 3/3), G, A♯dim, Bm (2/3), C (1/3).
- Notes: B, A♯, G, F, E, D, C, B.

Line 8: E♯m (D♯) scale

- Triads: B, C, D♯dim, E♯m (4/3), F♯dim, G aug, A♯m (3/3), B (2/3), C (1/3).
- Notes: E♯, D♯, C, B, A, G, F, E♯.

Legend:
 double sharp = x

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MELODIC MINOR

Scale in Second Inversion Triads - cycle of fifths - 12 keys - full range-middle voice is tonic-Descend in relative major keys

Am Bm Caug D E F#dim G#dim Am Bm 2/3 1/3 2 3

Dm Bdim C#dim Dm Em F#aug G A Bdim 2/3 1/3 5 6 7

Gm Bbaug C D Edim F#dim Gm Am Bbaug 2/3 1/3 3 4

Cm Bdim Cm Dm Eb aug F G Adim Bdim 2/3 1/3 6 7 1

Fm Bb C Ddim Edim Fm Gm Abaug Bb 2/3 1/3 3 4 5

Bbm Cm Db aug Eb F Gdim Adim Bbm Cm 2/3 1/3 1 2 3

Ebm Bb Cdim Ddim Ebm Fm Gbaug Ab Bb 2/3 3/3 2/3 1 2 3 4 5 6

G#m Baug C# D# E#dim F#dim G#m A#m Baug 2/3 1/3 1 2 3 4

Double Sharp=x

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Scale in Second Inversion Triads -

4th finger is omitted - reverse by omitting the first finger - this is good practise-apply it to all of the scales - It is very necessary for voice motion, as in the super & sub series

First finger is omitted

Scale in Root triads - cycle of fifths - 12 keys - full range-lower voice is the tonic

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Scale in Root triads

MAJOR

The following table summarizes the chord names and ratios for each scale shown in the image:

Scale Root	Triad 1	Triad 2	Triad 3	Triad 4	Triad 5	Triad 6	Triad 7	Triad 8
Ab	Ab	Bbm	Cm	Db 4/3	Eb	Fm 3/3	Gdim 7	Ab 1
Db	Ab	Bbm	Cdim	D 3/3	Ebm	Fm 2/3	Gb 3/3	Ab 2/3
Gb	Abm	Bbm	Cb	Db 4/3	Ebm	Fdim 3/3	Gb 2/3	Abm 1/3
B	G#m	A#dim	B	C#m 4/3	D#m	E	F# 3/3	G#m 2/3
E	G#m	A	B	C#m 4/3	D#dim	E 3/3	F#m 2/3	G#m 3/3
A	G#dim	A	Bm	C#m 4/3	D 3/3	E	F#m 2/3	G#dim 1/3
D	G	A	Bm	C#dim 3/3	D	Em	F#m 2/3	G 1/3
G	G	Am	Bm	C 3/3	D 4/3	Em 3/3	F#dim 7	G 2/3